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Per EMS 12-4-79

By Markus Lujan CIC-14 12-20-95

LOS ALAMOS SCIENTIFIC LABORATORY

of

THE UNIVERSITY OF CALIFORNIA

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Per Bill Palatin FSS-16 Date: 12-13-95

By Markus Lujan CIC-14 Date: 12-20-95

GAMMA RADIATION EXPOSURE

AS A

FUNCTION OF DISTANCE

OPERATION RANGER

UNCLASSIFIED

CLASSIFICATION CHANGED TO  
BY AUTHORITY OF TID-1388 12-31-72

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VERIFIED BY Markus Lujan, 12-20-95  
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Report written by:

Ellery Storm



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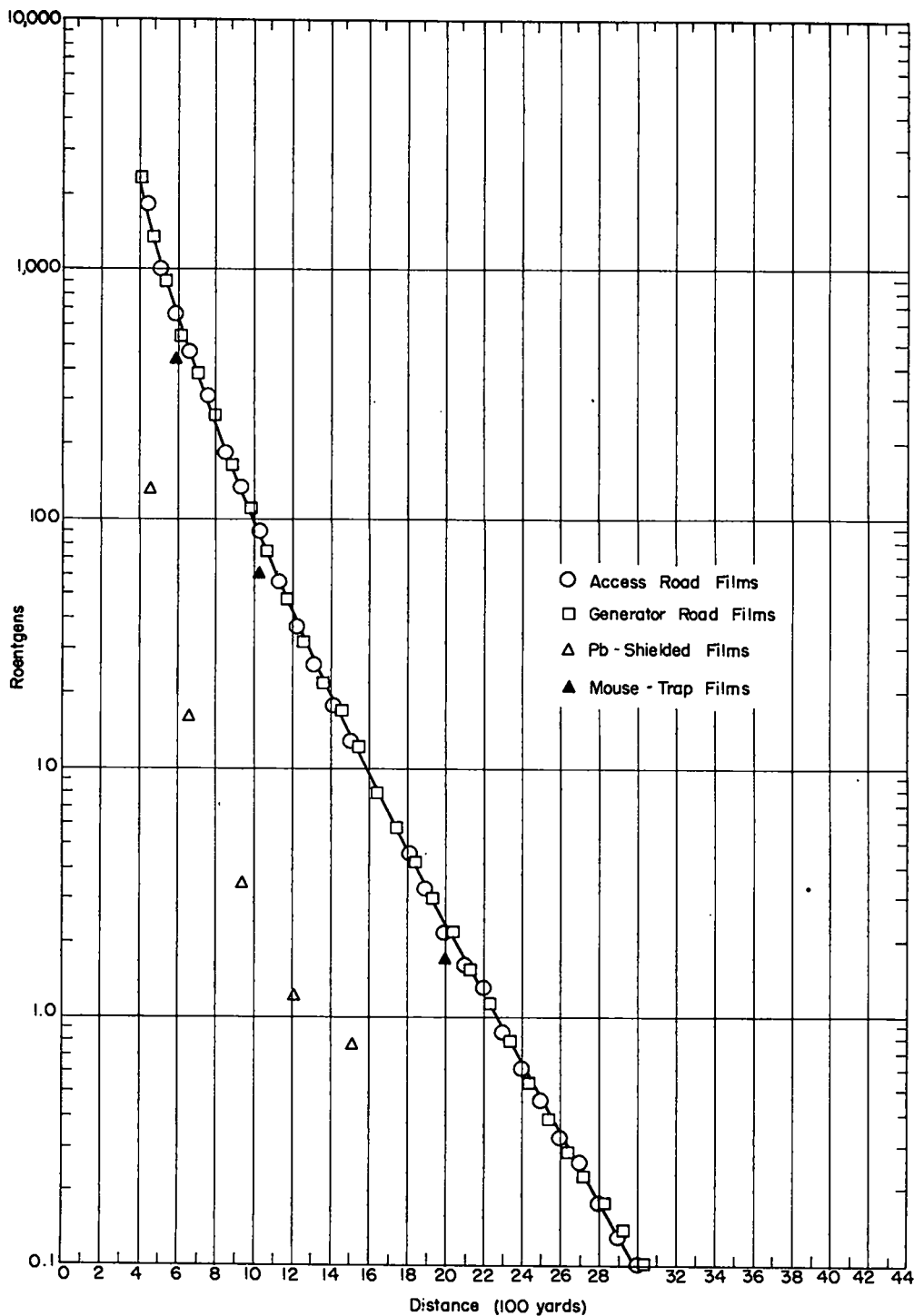


Figure 6  
TEST A - Gamma Radiation Exposure vs. Distance

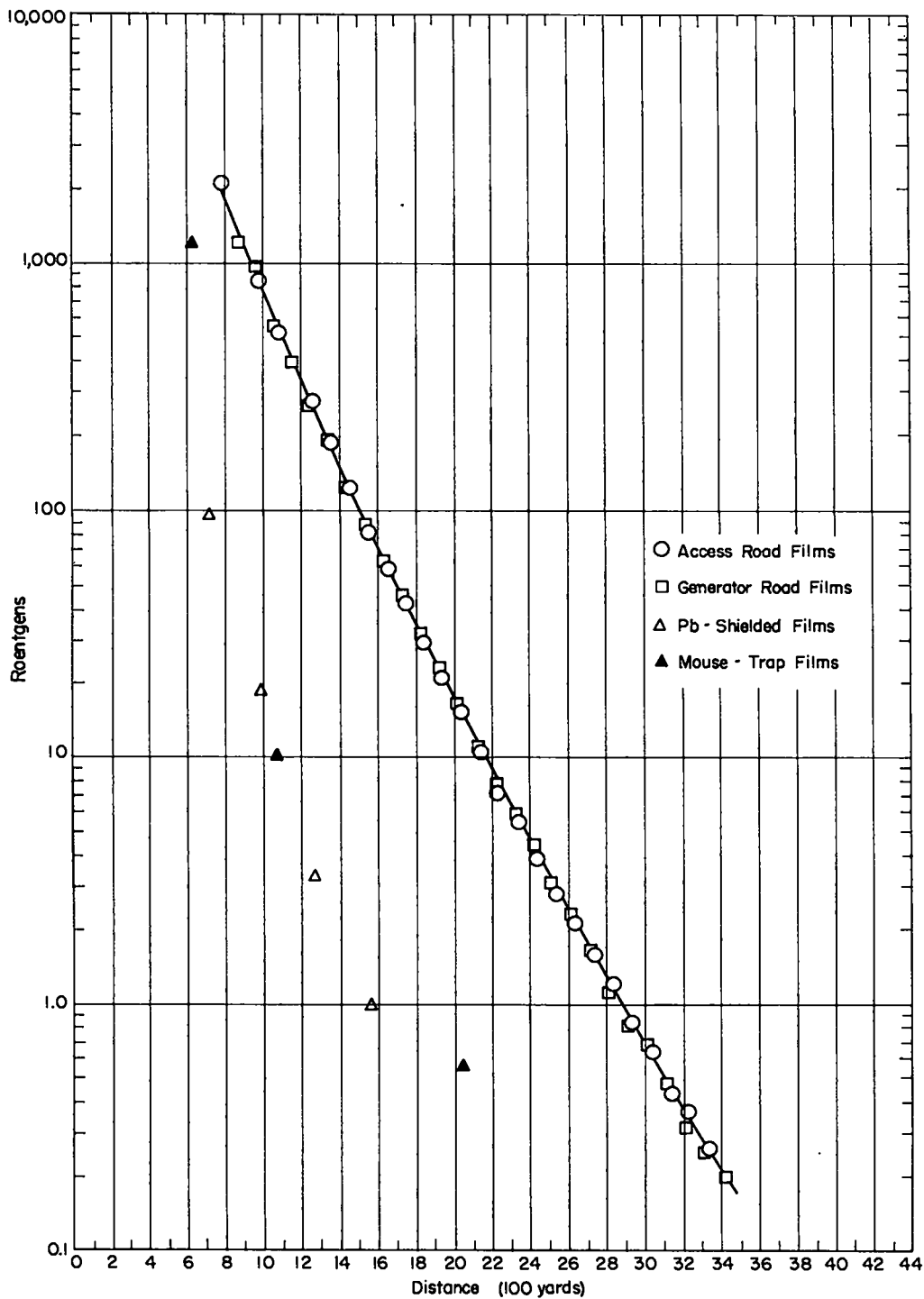


Figure 7  
TEST B<sub>1</sub>- Gamma Radiation Exposure vs. Distance

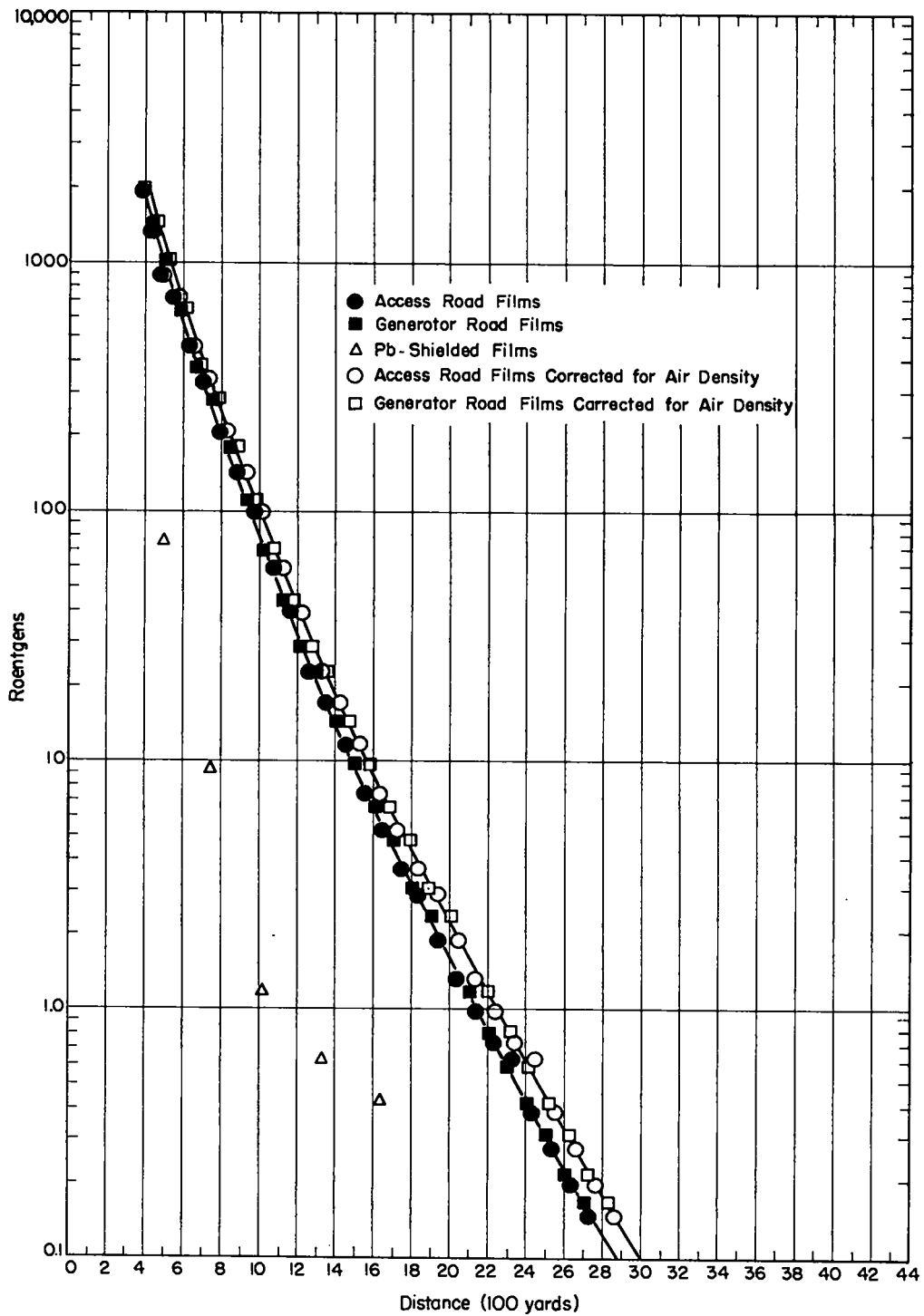


Figure 8  
TEST E - Gamma Radiation Exposure vs. Distance

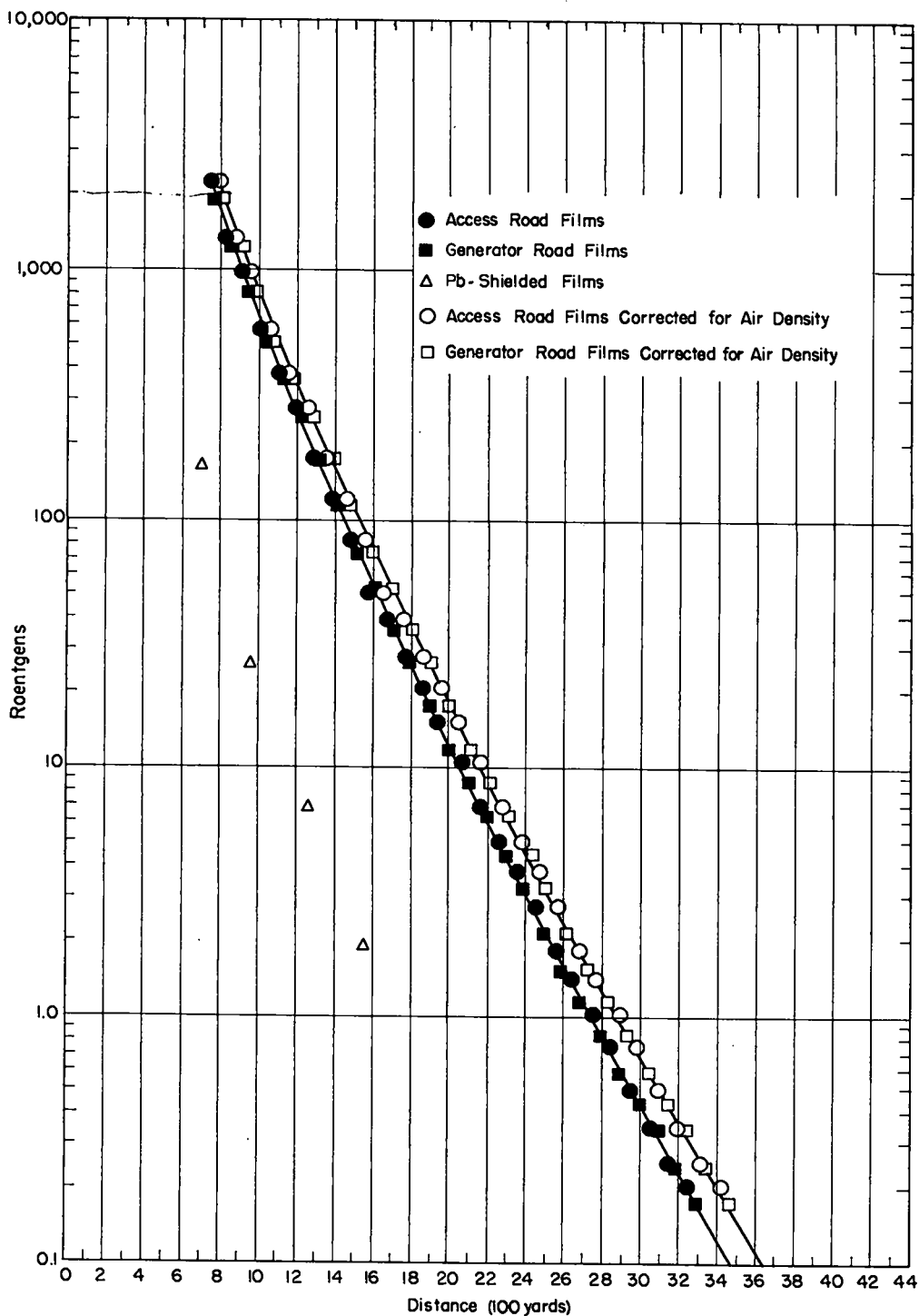


Figure 9  
TEST B<sub>2</sub> - Gamma Radiation Exposure vs. Distance

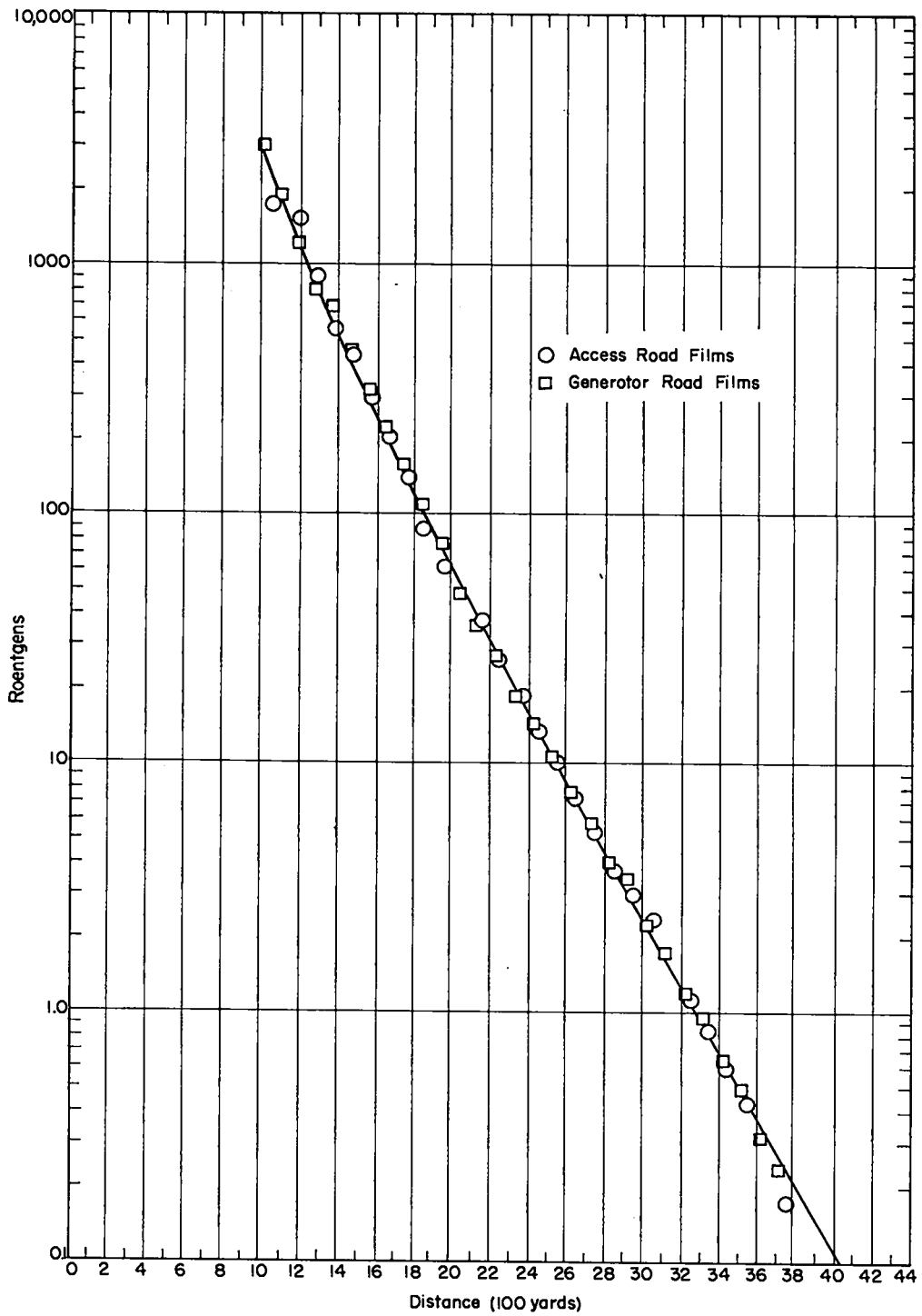
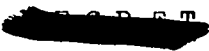


Figure 10  
TEST F - Gamma Radiation Exposure vs. Distance



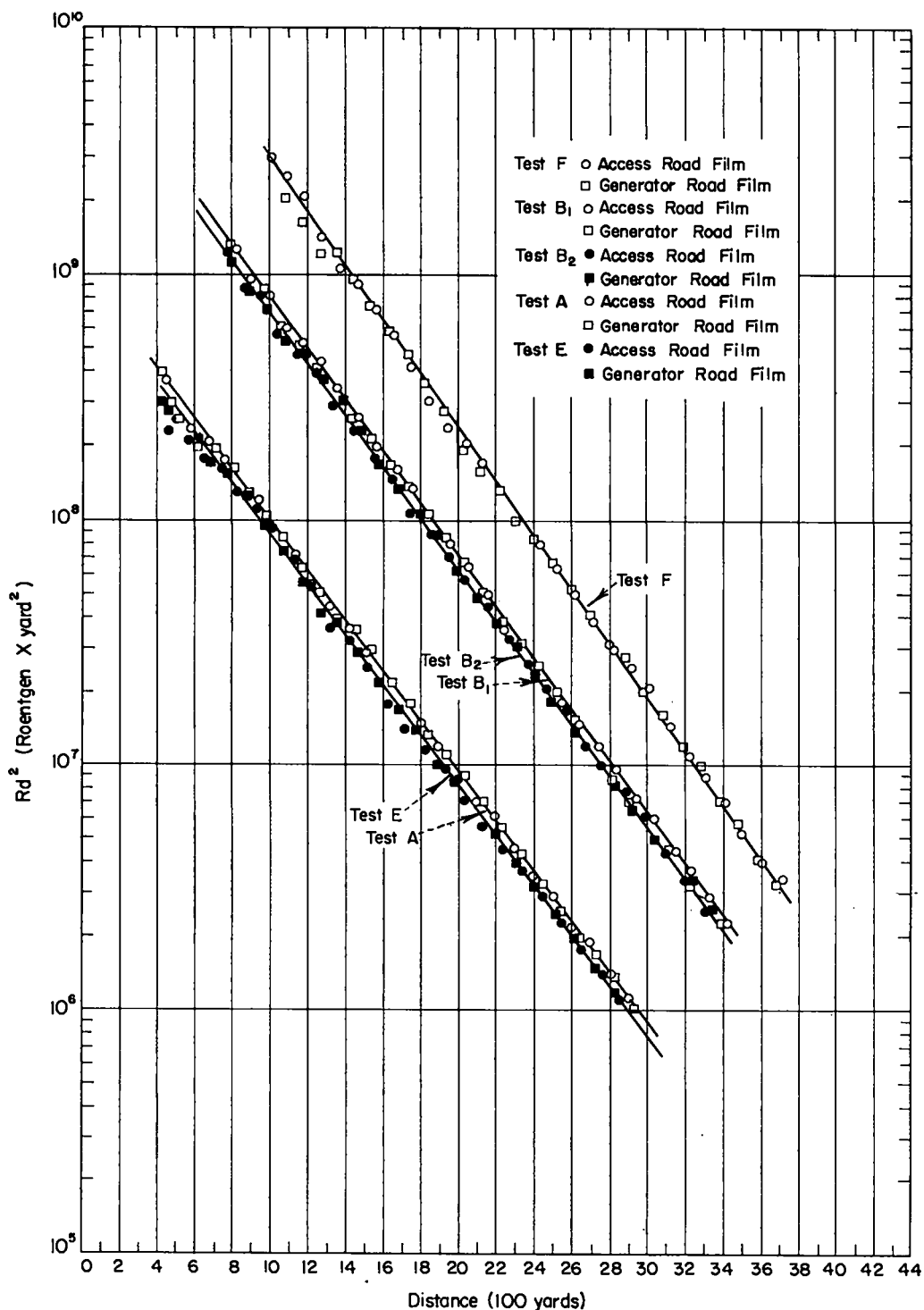


Figure 11  
Gamma Radiation Times Distance Squared as a Function of Distance



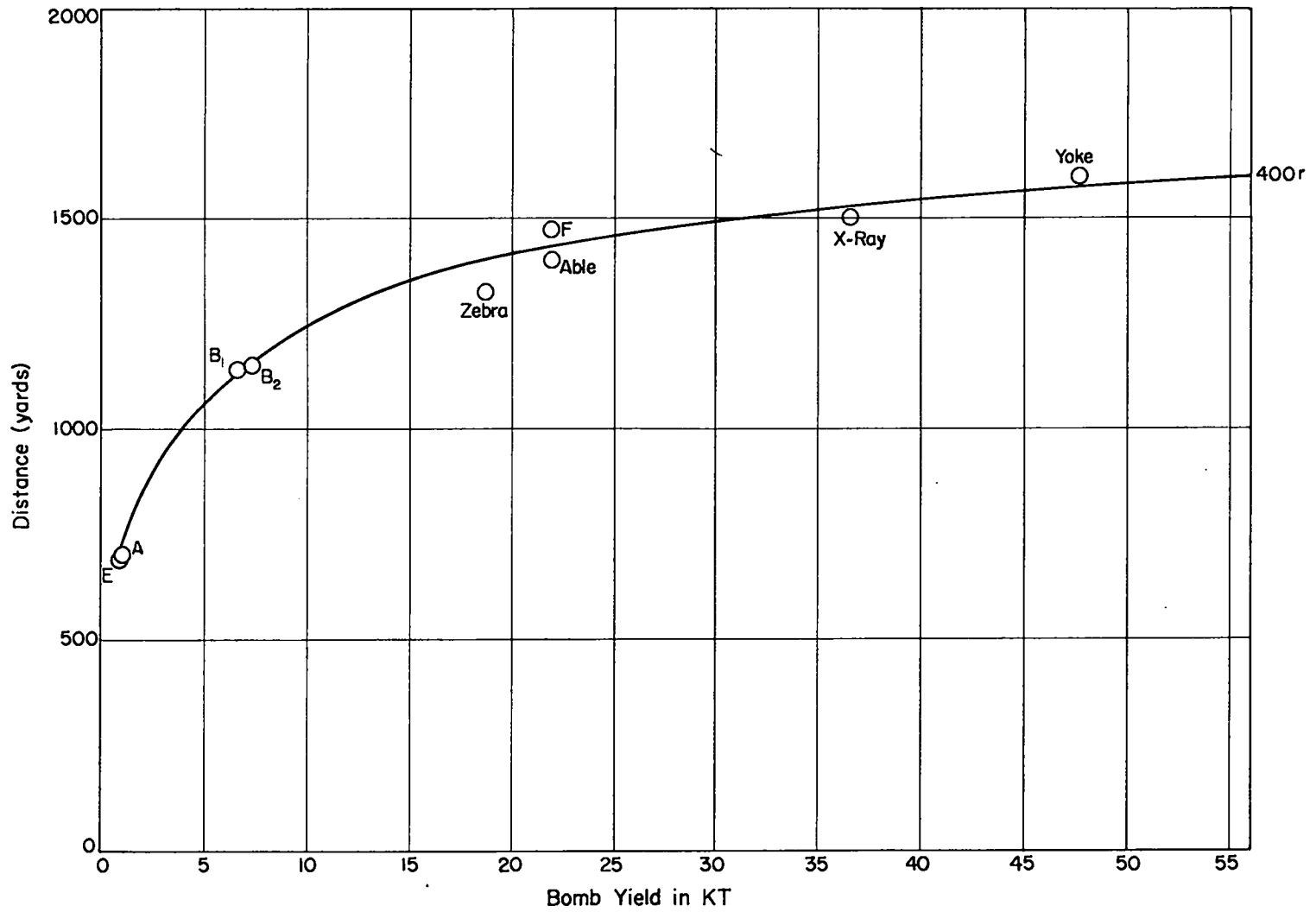



Figure 12

Distance of the 400r Level as a Function of Bomb Kilotonage



  
Table IX

Yield from  
Gamma Radiation Exposure Versus Distance Measurements  
All Tests Normalized to Fireball Measurement  
of Test B<sub>1</sub> (7.4 KT)

<u>Test</u>	<u>KT from Fireball Measurements</u>	<u>KT from Rd<sup>2</sup> Ratios at 3000 yards</u>	<u>Per Cent Difference</u>
A	1.5	1.03	31.3
B <sub>1</sub>	7.4	7.4	0.00
E	.94	.924	1.70
B <sub>2</sub>	6.7	6.37	4.92
F	22	21.7	1.36

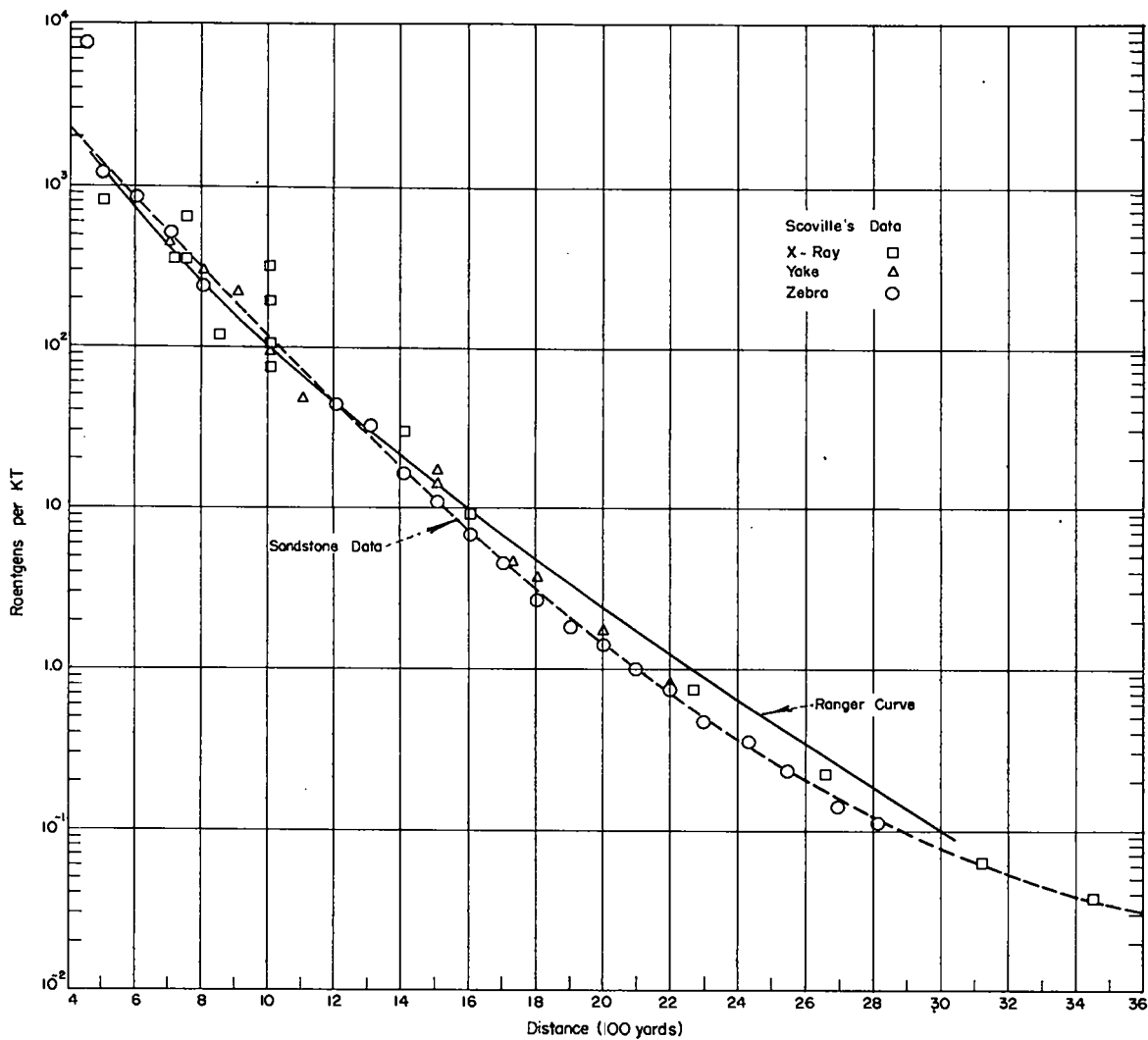


Figure 14  
Gamma Radiation vs. Distance (Ranger and Sandstone)